



State of Utah

Department of  
Environmental Quality

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DIVISION OF AIR QUALITY  
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DAQE-IN0119770006-08

August 5, 2008

Dwayne J. Woolley  
Trans-Jordan Cities  
10873 S. 7200 W.  
PO Box 95610  
South Jordan, UT 840950610

Dear Mr. Woolley:

Re: Intent to Approve: Installation of Three (3) Engine Generators at Trans-Jordan Landfill  
Salt Lake County; CDS B; NSPS (Part 60), NSR, Nonattainment or Maintenance Area, Title V  
(Part 70)  
Project Number: NSR0119770006

The attached document is the Intent to Approve for the above-referenced project. The Intent to Approve is subject to public review. Any comments received shall be considered before an Approval Order is issued. Future correspondence on this Intent to Approve should include the engineer's name as well as the DAQE number as shown on the upper right-hand corner of this letter. Please direct any questions you may have on this project to John Jenks. He may be reached at (801)536-4459.

Sincerely,

Mr. Ty L. Howard, Manager  
Major New Source Review Section

TLH:JJ:sa

cc: Mike Owens  
Salt Lake Valley Health Department

**STATE OF UTAH**

**Department of Environmental Quality**

**Division of Air Quality**

**INTENT TO APPROVE: Installation of Three (3) Engine  
Generators at Trans-Jordan Landfill**

**Prepared By: John Jenks, Engineer**

**Phone: (801)536-4459**

**Email: [jjenks@utah.gov](mailto:jjenks@utah.gov)**

**INTENT TO APPROVE NUMBER**

**DAQE-IN0119770006-08**

**Date: August 5, 2008**

**Trans-Jordan Cities: Trans-Jordan Landfill**

**Source Contact:**

**Mr. Todd Davlin Director of Operations**

**Phone: (517) 371-9755**

**Mr. Ty L. Howard, Manager  
Major New Source Review Section  
Utah Division of Air Quality**

## ABSTRACT

With a letter dated January 28, 2008, Granger Electric of South Jordan submitted a Notice of Intent (NOI) to install three engine generators at the Trans-Jordan Landfill in South Jordan, Utah. The engines would be fired by landfill gas currently being collected and flared at the landfill. After review of the NOI, UDAQ determined that these new engines must be considered part of the Trans-Jordan Landfill and not as a new separate source. Therefore, the current Approval Order for Trans-Jordan Landfill (DAQE-AN1977002-06) will be modified to incorporate the new engines.

The currently permitted flare will remain on-site as an emergency backup landfill gas destruction device in order to comply with the requirements of 40 CFR 60, Subpart WWW (Landfill Gas NSPS). While not currently subject to the provisions of this subpart, Trans-Jordan Landfill desires to operate the landfill gas collection and control system to voluntarily meet the requirements of Subpart WWW. All current enforceable conditions associated with the operation of either the landfill or the landfill gas flare will remain in place following the modification.

Total emissions from this source will therefore include both operation of the three new engines, as well as a minor amount of operation of the landfill gas flare during periods of maintenance or upset conditions. Including the reduction in emissions from the reduction in landfill gas flare operation, the total increase in emissions is as follows:

6.27 tons per year of PM<sub>10</sub>  
17.54 tons per year of NO<sub>x</sub>  
0.89 tons per year of SO<sub>2</sub>  
88.64 tons per year of CO

The total increase in PM<sub>10</sub>, NO<sub>x</sub> and SO<sub>2</sub> emissions is 24.7 tons per year, which does not require offsets. The existing Title V Operating Permit for Trans-Jordan Landfill will be modified prior to operation of the new engines.

The Notice of Intent (NOI) for the above-referenced project has been evaluated and has been found to be consistent with the requirements of the Utah Administrative Code Rule 307 (UAC R307). Air pollution producing sources and/or their air control facilities may not be constructed, installed, established, or modified prior to the issuance of an Approval Order (AO) by the Executive Secretary of the Utah Air Quality Board. The Division of Air Quality is authorized to charge a fee for reimbursement of the actual costs incurred in the issuance of an AO. An invoice will follow upon issuance of the final Approval Order.

A 30-day public comment period will be held in accordance with UAC R307-401-7. A notice of intent to approve will be published in the Salt Lake Tribune and Deseret News on August 9, 2008. During the public comment period the proposal and the evaluation of its impact on air quality will be available for the public to review and provide comment. If anyone so requests a public hearing it will be held in accordance with UAC R307-401-7. The hearing will be held as close as practicable to the location of the source. Any comments received during the public comment period and the hearing will be evaluated. The proposed conditions of the AO may be changed as a result of the comments received.

**Name of Permittee:**

Trans-Jordan Cities  
10873 S. 7200 W.  
PO Box 95610  
South Jordan UT 840950610

**Permitted Location:**

Trans-Jordan Cities: Trans-Jordan Landfill  
10873 South 7200 West  
South Jordan UT 84095-0610

**UTM coordinates:** 410,879 m Easting, 4,490,492 m Northing

**SIC code:** 4953 (Refuse Systems)

**Section I: GENERAL PROVISIONS**

- I.1 All definitions, terms, abbreviations, and references used in this AO conform to those used in the Utah Administrative Code (UAC) Rule 307 (R307) and Title 40 of the Code of Federal Regulations (40 CFR). Unless noted otherwise, references cited in these AO conditions refer to those rules. [R307-101]
- I.2 The limits set forth in this AO shall not be exceeded without prior approval. [R307-401]
- I.3 Modifications to the equipment or processes approved by this AO that could affect the emissions covered by this AO must be reviewed and approved. [R307-401-1]
- I.4 All records referenced in this AO, which are required to be kept by the owner/operator, shall be made available to the Executive Secretary or Executive Secretary's representative upon request, and the records shall include the two-year period prior to the date of the request. Records shall be kept for a minimum of five (5) years. [R307-415-6b]
- I.5 At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any equipment approved under this Approval Order including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Executive Secretary which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. All maintenance performed on equipment authorized by this AO shall be recorded. [R307-401-4]
- I.6 The owner/operator shall comply with R307-150 Series. Inventories, Testing and Monitoring. [R307-150]
- I.7 The owner/operator shall comply with UAC R307-107. General Requirements: Unavoidable Breakdowns. [R307-107]

## **Section II: SPECIAL PROVISIONS**

### **II.A The approved installations shall consist of the following equipment:**

#### **II.A.1 Permitted Source**

#### **II.A.2 MSW Landfill (designated as Landfill)**

Class I Sanitary Landfill with a 10.5 million Mg capacity. Opened in 1958, lateral expansion in 1997/98. NSPS WWW and NESHAP M applies to this unit.

#### **II.A.3 Gas Processing and Treatment Station**

Dewatering tanks, gas compressors, gas coolers

#### **II.A.4 Landfill Gas Bypass Flare**

Candlestick-type flare and ancillary equipment

#### **II.A.5 Generator #1**

3520 Caterpillar Landfill Gas Fired Generator

#### **II.A.6 Generator #2**

3520 Caterpillar Landfill Gas Fired Generator

#### **II.A.7 Generator #3**

3520 Caterpillar Landfill Gas Fired Generator

### **II.B Requirements and Limitations**

#### **II.B.1 Conditions on Permitted Source.**

II.B.1.a Visible emissions shall be controlled such that Opacity  $\leq$  10 percent at the property boundary and  $\leq$  20 percent onsite. [R307-309]

II.B.1.b Sulfur content of any fuel oil combusted shall be no greater than 0.85 lb/MMBtu heat input. [R307-401]

#### **II.B.2 Conditions on Municipal Solid Waste Landfill.**

II.B.2.a The permittee shall meet all applicable requirements of 40 CFR 60 Subpart WWW - Standards of Performance for Municipal Solid Waste Landfills. [40 CFR 60]

#### **II.B.3 Conditions on Landfill Gas Bypass Flare.**

II.B.3.a The landfill gas bypass flare shall only be operated for control of landfill gas emissions and only during periods when the landfill gas fired generators are offline. During these periods all potential emissions of landfill gas shall be routed through the landfill gas bypass flare for control prior to being released to the atmosphere. [R307-401-8]

#### **II.B.4 Conditions on Landfill Gas Fired Generators.**

II.B.4.a The exhaust stacks shall vent vertically unrestricted with no obstruction to upward momentum at or beyond the opening of the stack. The height of the stacks shall be no less than 36 feet as measured from the base of the stack. [R307-401]

II.B.4.b Each landfill gas fired generator shall be operated such that emissions of Nitrogen Oxides  $\leq$  1.97 lbs/hr. [R307-401]

II.B.4.b.1 **Monitoring:**  
Nitrogen Oxides monitored by 40 CFR 60, Appendix A, Method 7, 7A, 7B, 7C, 7D, or 7E, NO<sub>x</sub> once every three years. [R307-150]

### **Section III: APPLICABLE FEDERAL REQUIREMENTS**

In addition to the requirements of this AO, all applicable provisions of the following federal programs have been found to apply to this installation. This AO in no way releases the owner or operator from any liability for compliance with all other applicable federal, state, and local regulations including UAC R307.

NSPS (Part 60), WWW: Municipal Solid Waste Landfills

### **REVIEWER COMMENTS**

The final approval order will be based on the following documents:

Is Derived From	Additional submitted information dated March 18, 2008
Is Derived From	Source submitted NOI dated January 28, 2008
Supersedes	DAQE-AN1977002-06 dated March 10, 2006

1. Comment on an item originating in Source Plan Review regarding Permitted Source NSPS Subpart WWW Applicability: The source is not currently subject to the landfill gas collection and control system requirements of 40 CFR 60 Subpart WWW as its total emissions of NMOC have not yet reached the threshold (50 Mg/Y) where the installation of such a system is required. However, the source has agreed to install and operate a gas collection and control system that will meet the requirements of Subpart WWW in the event that the landfill does become subject to this subpart. The landfill gas fired generators are not considered control equipment under the provisions of Subpart WWW as the gas processing equipment satisfy the definition of treatment system under NSPS Subpart WWW. Hence the generators are treated as separate emission units located at the source. [Last updated July 17, 2008]
2. Comment on an item originating in Source Plan Review regarding Permitted Source Single Source vs. Separate Source Determination: The source submitted additional information on March 21, 2008 that justified the need for a single source determination. While the generators are owned and operated by Granger Electric of South Jordan (a separate entity from Trans-Jordan Landfill), the engines are 100% dependant on the supply of gas from Trans-Jordan. In addition, some of the electricity produced will be used by Trans-Jordan with the remainder being sold to the grid. [Last updated June 25, 2008]